PLEXTOR®

PLEXWRITER™ 12/10/32A

Model PX-W1210TA (Internal)

Congratulations!

Thank you for purchasing the PlexWriter 12/10/32A, a reliable, high-performance CD rewriter, recorder and reader. We appreciate the confidence you have shown in us. Our goal is to put you—and keep you—on the leading edge of CD technology.

To get you there, we first have to help you install your PlexWriter drive properly and operate it correctly. After that, the responsibility is yours to seek the applications that make rewritable CD such a powerful and exciting addition to your system.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications should be approved by the party responsible for compliance of FCC Rules; otherwise, the user loses authority to operate the equipment.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The laser beam emitted from the optical pickup is invisible. Accordingly:

- Do not open the optical pickup housing.
- Obtain service only from Plextor-authorized personnel.

LASER INFORMATION

These products have been designed and manufactured according to IEC 825-1 on the Safety of Laser products. This product comes under “Class 1 Laser Products.” A Laser Caution Marking is attached on the top of the internal drive model: “Caution: Invisible laser radiation when open. Avoid direct exposure to beam.”

CAUTION: To disconnect the CD drive from an electrical current, pull out the power plug.

VORSICHT: DIE TRENNUNG VOM NETZ ERFOLGT DURCH ZIEHEN DES NETZSTECKERS.

Zur Einhaltung der Funk-Entstörung von nicht selbständig betreibbaren Hochfrequenzgeräten (periphere Anlagenkomponenten).

Dieses Gerät entspricht als Einzelgerät den Funk-Entstöranforderungen der Postverfügung Nr. 243/1991.
Wird das Gerät innerhalb einer Anlage zusammen mit anderen Geräten betrieben, so muss bei Inanspruchnahme der “Allgemeinen (Betriebs-) genehmigung” nach der BMPT-AmtsblVfg Nr. 243/1991 die gesamte Anlage folgenden Richtlinien entsprechen:

- Grenzwertklasse B der EN55022
- Auflagen nach § 2 der BMPT-AmtsblVfg 243/1991

Dies ist bei der Zusammensetzung einer Anlage (z.B. Computersystem) aus nur einzeln geprüften Geräten nicht immer erfüllt.

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1. Getting Started

This manual explains how to install and use your internal ATAPI PlexWriter 12/10/32A drive. For those of you with PCs, the installation process may seem a bit complicated (Mac people have it easy). Fear not. We have successfully walked through the installation process with millions of customers who previously had lived in mortal terror of the innards of their computer.

About this Manual

Please read this manual carefully and keep it handy for easy reference. Use the manual for installation, operation and troubleshooting. See your dealer or call Plextor's Technical Support Department should your drive require repair or service.

In this manual you should find all the information you need to successfully install, operate and troubleshoot your drive. If you run into a problem that doesn't seem to be covered, however, please contact us. (See "Appendix B: Technical Support" for the different ways you can contact us.) You will be connected to our friendly, helpful band of tech support engineers who know their stuff. What might seem like an uncooperative drive to you could very well be a 30-second fix to them. But we will never know unless you contact us.

Meet Your PlexWriter 12/10/32A

The PlexWriter 12/10/32A is a CD-ReWritable drive that provides professional quality CD performance for writing, rewriting and reading.

What the PlexWriter 12/10/32A Does

The PlexWriter 12/10/32A writes to CD-R (recordable CD) media at up to 12X speed, and it writes to new high-speed CD-RW (rewritable CD) media at up to 10X speed. (Naturally, the drive can also write to conventional CD-RW media at 2X and 4X speeds.) It reads all CD-ROM and CD-R media at a maximum of 32X speed with an average access time of 150 milliseconds. Maximum read speed of CD-RW media is 24X.

Reliable writing is virtually guaranteed, thanks to unique circuitry that automatically detects the type of media being recorded and adjusts the PlexWriter 12/10/32A to provide the optimum laser power and length of burn. The PlexWriter 12/10/32A has an EIDE interface that supports the ATAPI-4 command set, including special commands for CD-R and CD-RW.

The PlexWriter 12/10/32A is fully MMC-compliant, supporting writing features such as Disc-at-Once, Track-at-Once and Session-at-Once, as well as variable and fixed packet writing. It also supports the UDF file system implemented through packet writing.

The PlexWriter 12/10/32A supports running OPC and is compatible with Windows Plug & Play. Flash memory allows upgrading the PlexWriter 12/10/32A to the latest firmware revision (available from the Plextor web site) without opening the computer or physically accessing the drive. New BURN-Proof™ technology* reduces buffer underrun errors, making the writing of CDs even more robust. And Plextor backs up this remarkable drive with a one-year full warranty on parts and labor, and unlimited toll-free tech support.

What You Can Do with the PlexWriter 12/10/32A

Just look at some of the things you can do with your PlexWriter 12/10/32A:

- Record data or audio onto writable or rewritable CD media.
- Play music CDs.
- Save photos and other images on rewritable or writable CDs.
- Create a “CD sneakernet” to share information with colleagues—just use software such as Adaptec DirectCD to Drag & Drop files onto CD-R or CD-RW media, then continue adding files and sharing the same CD disc.
- Archive images and video to CD.
- Master new software programs on CD.
- Periodically back up your computer's hard disk, including operating system, hardware configuration, registry, program files and data. Plextor's CD Res-Q™* software makes this easy! You can even make a bootable CD. Information on CD Res-Q can also be found at: http://www.plextor.com/english/products/cd_resq.html

Get CD Res-Q™ Directly from Plextor!

CD Res-Q™ software is available for purchase directly from Plextor. To purchase CD Res-Q by phone, please call us at 408-980-1838, extension 3.

To purchase CD Res-Q by e-mail, send your request to sales@plextor.com.

* BURN-Proof is a licensed technology from Sanyo Electric Ltd.

What's in the Box

What you find in your Plextor box depends on what the company that sold you the box put in—or took out—while the Plextor drive was in their possession.

Plextor currently sells its PlexWriter 12/10/32A drive in this configuration:

- PlexWriter 12/10/32A CD-RW drive
- 40-pin IDE ribbon cable
- 4 mounting screws
- 1 piece of approved high-speed CD-RW media
- 1 piece of approved CD-R media
- Plextor CD with bundled pre-mastering and packet writing software, including Plextor Manager 2000
- PlexWriter 12/10/32A operation manual
- Warranty registration card
- Plextor Manager 2000 manual

If the security sticker on top of your box is cut, there may be a good reason: for example, a dealer may have added other components or software. Carefully check the contents to ensure nothing has been removed. If something is missing, contact the party from whom you purchased the box for an explanation.

NOTE: This applies to the Plextor retail box. Your drive may have been shipped in a different box with other contents, depending on whom you purchased the drive from and what they included inside the box.

Save Your Box!

Be sure to save the box after you have installed your PlexWriter drive. The box and its packaging material were designed and drop tested to ensure your PlexWriter can endure rough treatment and still arrive in working order.

We hope you will never have to ship your drive back to us. If you do, however, it's best to send it packaged in the original box. Some of our customers have not held on to their boxes and have had to resort to less-than-secure methods to get drives back to us.

We cannot assume liability for any damage your drive sustains during shipment. Therefore, please ship your drive in the safest manner possible.

Before shipping your drive, refer to the Plextor web site for pointers. The web site is at:
http://www.plextor.com

If you did not receive a box (for example, your drive came pre-installed in a computer), we recommend you pay a packaging store (such as Mail Boxes Etc.) to ship your drive. If you don’t have a packaging store in your area, ask our Technical Support Department for packaging pointers when you call to get an RMA number before returning any drive.

If your drive came pre-installed, some or all of the items above may have been installed and may not be separately available. See Appendix C for locations to purchase additional or replacement accessories.

PlexWriter Drive Features and Controls

Before proceeding, become familiar with the controls and features of your PlexWriter drive. Match the parts of your drive to the illustrations below.

Front Panel

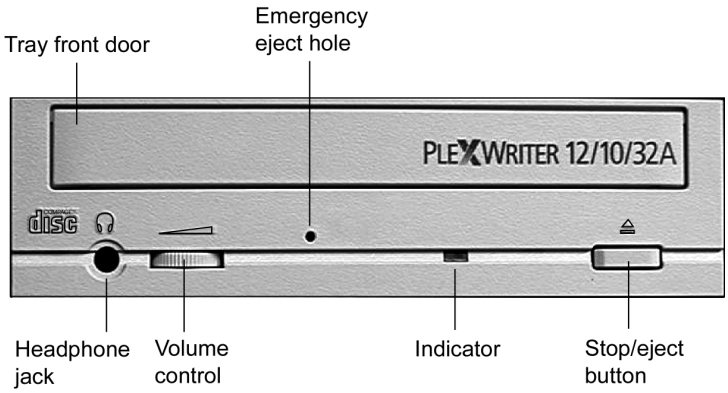

Figure 1: Front Panel of the PlexWriter 12/10/32A Drive

- **Tray front door**: Attached to tray drawer.
- **Headphone jack**: Stereo mini-jack for headphones and powered speakers.
- **Volume control**: Controls volume of headphone jack.
- **Indicator**: Illuminated green when power is on and a disc in the drive, solid yellow when initializing reading the disc, and blinking orange when writing data to disc.
- **Stop/eject button**: Push to eject or insert tray.
- **Emergency eject hole**: Insert emergency eject stick, paper clip, or other thin, rigid object to eject tray if automatic eject button does not work. Turn OFF power before using this feature.

Rear Panel

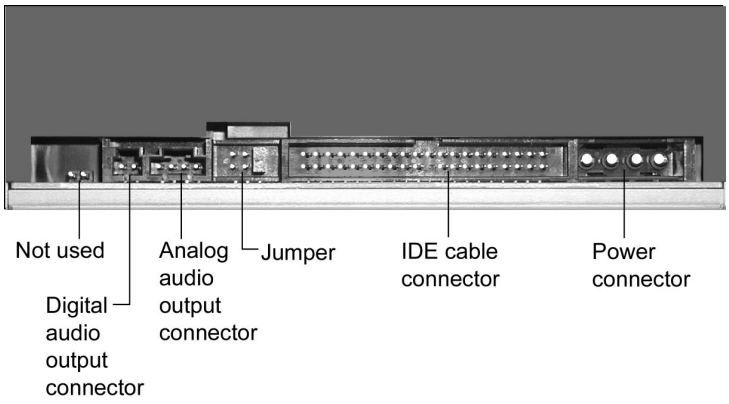

Figure 2: Rear Panel of the PlexWriter 12/10/32A Internal Drive

- **Digital audio output connector**: Outputs digital stereo signal. For connecting to a sound board that supports Sony/Philips digital interface (SPDIF) or Digital_In.
- **Analog audio output connector**: Outputs analog stereo signal. Use to connect to sound board or audio amplifier. Use standard MPC-3 type, 4-pin connector.
- **Jumper**: Use to select operation as an IDE master or slave, or for cable select. In general, leave this jumper at its factory setting.
- **IDE cable connector**: Connects to IDE interface using 40-pin IDE flat ribbon cable.
- **Power connector**: Connects to your computer's power supply to provide DC +5V and +12V to the PlexWriter.

About Mastering Software

In order to create CD-R and CD-RW discs you will need to have mastering software installed on your computer system. You can check our web site (www.plextor.com) for an updated list of software that supports your drive. We provide a mastering software kit in our retail packaging for your convenience.

Precautions

Like the rest of your computer system, your PlexWriter requires reasonable care in its installation and use.

- Keep the area around your drive clean from dust, smoke, and other contaminants.
- Do not allow moisture or liquids, including water or cleaning fluids, to touch the drive. Thinner, benzene, or alcohol-based solvents can mar your drive's surface.
- Do not drop or jolt the drive.
- Do not attempt to open the drive and service it yourself. Removing the cover may expose you to harmful electrical voltages or the laser beam. For your safety, entrust service to Plextor-authorized service personnel only.
- Keep your CD discs free of dirt or other contaminants, by storing them in jewel cases. Use only industry-standard discs. Do not insert dirty, warped, poorly balanced, or cracked discs into the drive.
- Do not clean discs using a circular motion. Instead, use a radial motion: start at the center of the disc and proceed to the outer edge.

CAUTION: Install your PlexWriter horizontally. Plextor does not guarantee the drive's performance in a vertical position.

2. Installing Your PlexWriter

This chapter explains how to physically install your PlexWriter in your computer. The steps you'll need to do are as follows:

1. Turn OFF your computer system.
2. Set the jumper for your new PlexWriter drive, if necessary.
3. Mount the PlexWriter drive into an available drive bay inside the computer system.
4. Make all necessary cabling connections: IDE cable, power cable, and audio cable.
5. Turn your computer system ON.

The following pages give more details for this procedure.

Open the Computer and Prepare for Installation

To determine whether your PlexWriter will be a master or a slave, open your computer and examine the IDE connections to the motherboard.

QuickStart Installation—For Experienced PC Users Only

If you've installed computer peripherals before, you're in luck with the PlexWriter drive. Use this QuickStart installation to get up and running quickly.

Typical Scenario 1: You have a PC with an IDE interface installed, you have Windows 95/98 or 2000/NT, and you have nothing installed on the secondary IDE port.
What to do: Leave the PlexWriter's jumper set to Master, attach it to the secondary IDE port, and go. Windows will recognize the drive automatically.

Typical Scenario 2: You have a PC with an IDE interface installed, you have Windows 95/98 or 2000/NT, the primary IDE bus already has two devices connected and you have a CD-ROM installed on the secondary IDE port.
What to do: Change the CD-ROM to Slave, leave the PlexWriter's jumper set to Master and attach the PlexWriter to the secondary IDE port. Windows recognizes the new drive automatically.

If neither of these situations applies to you, or you're not comfortable with IDE installation, read the rest of this chapter for more detailed installation instructions.

To open the computer:

1. Before proceeding, make sure the power to your computer and any external peripherals is OFF and your computer is UNPLUGGED from its power source.
2. Remove your computer's cover, following the directions provided by your computer's manufacturer. Typically, this involves loosening or removing several screws on the back panel of your computer and sliding off the cover.

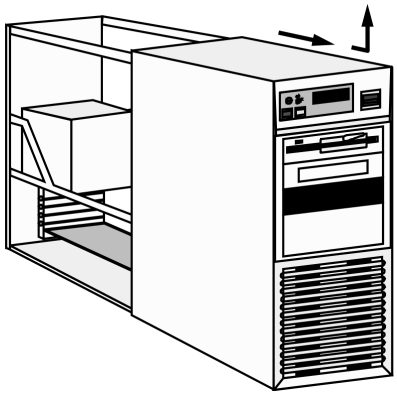

Figure 3: Removing a Typical Computer's Cover

Determine Your Existing IDE Configuration

With your computer open, determine the existing IDE configuration. You can do this by looking at the 40-pin IDE ribbon cable (or cables—there may be two) and seeing what is connected to them.

One end of the IDE cable is connected to a port on the computer's motherboard; and the other end is connected to one or two peripheral devices (such as a hard disk or CD-ROM drive). If there are two devices, one is considered the *master* and the other the *slave*. If there are two IDE ports, one is for the *primary* IDE bus and the other is for the *secondary* bus.

A typical computer's IDE configuration is usually one of the following:

- Hard disks connected as master and slave devices on primary IDE port; CD-ROM drive connected as master device on secondary IDE port.
- Hard disk connected as master device and CD-ROM drive connected as slave on the primary IDE port; nothing connected to secondary IDE port.
- Hard disk connected as master device on primary IDE port; nothing connected to secondary IDE port.

Set the Drive's Jumper

You specify your drive's master or slave setting before installing it. You do this by changing the position of a jumper on the jumper block at the rear of the drive.

Your drive ships from our factory with its jumper set to operate the PlexWriter as a master. This will work in the most commonly found environments.

Changing the Jumper on Your Internal PlexWriter Drive

As shown in Figure 4, the PlexWriter drive arrives from the factory with its jumper set to MASTER. (A function is ON if the jumper is installed and OFF if the jumper is removed.)

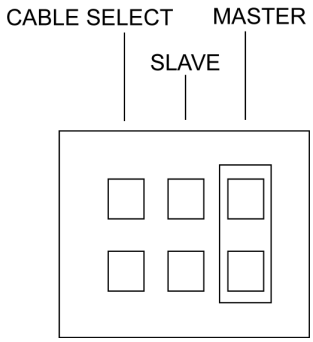

Figure 4: Factory Settings for Jumper at the Rear of the Drive

Changing to a Master, Slave, or Cable Select
The Master/Slave setting for the drive is determined by the jumper. To change the drive from Master to Slave or to Cable Select, you must move the jumper.

For example, to change the PlexWriter drive to be a Slave, move the jumper to the middle set of pins, leaving the other pins uncovered. To change the drive for Cable Select, move the jumper to the left set of pins.

Changing Jumper Settings
To remove a jumper, pull it off with your fingers or a pair of needle-nose pliers.

To install a jumper, push it onto the jumper pins.

CAUTION: Ensure power to the drive is OFF before installing or removing jumper.

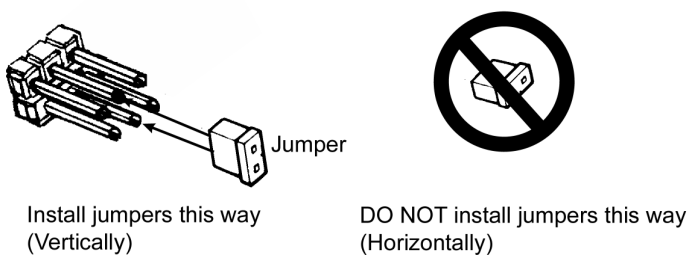

Figure 5: Install Jumper Across Vertical Pairs of Pins

CAUTION: Install jumper across each pin as shown (vertically). Do not connect one pin switch to another by installing the jumper lengthwise (horizontally). Doing so could result in damage to the drive.

Select an IDE Configuration

Set the jumper according to the desired configuration, as shown in this table and the illustrations in Figure 6.

	Before PlexWriter Installation	How to Install the PlexWriter
A	Hard disks connected as master and slave devices on primary IDE port; CD-ROM connected as master device on secondary IDE port.	Connect the PlexWriter as master device to the secondary IDE port. Remove the CD-ROM drive, change it to slave, and re-connect it to the secondary IDE port.
NOTE: Configuration A above can make it very difficult to write from the CD-ROM to the PlexWriter at 12X using “on-the-fly” copying. System configuration and performance will make a big difference. Depending on how fast the CD-ROM drive can stream data to the PlexWriter it may not be fast enough to constantly have the buffer full. In this case, the buffer may become empty and a buffer underrun error may happen. With the BURN-Proof technology of your PlexWriter you could still make successful copies if you use software that supports BURN-Proof. (All software shipped with PlexWriter 12/10/32A drive retail kits supports BURN-Proof.) If you still have problems writing with this configuration, use the image writing method or record at lower speed for best results. We also recommend that DMA be enabled on your computer, if your system supports it.		
B	Hard disk connected as master device and CD-ROM drive connected as slave on the primary IDE port; nothing connected to secondary IDE port.	Connect the PlexWriter as master to secondary IDE port.
C	Hard disk connected as master device on primary IDE port; nothing connected to secondary IDE port.	Connect the PlexWriter as master to secondary IDE port.

NOTE: For best performance, try to connect the PlexWriter to the IDE port that is not connected to the hard disk drive or to a CD-ROM drive. In most cases, connect the PlexWriter to the secondary IDE port.

NOTE: For best results, set the PlexWriter to be the master, if possible. DMA setting must be enabled on your system to achieve the drive's maximum writing speed.

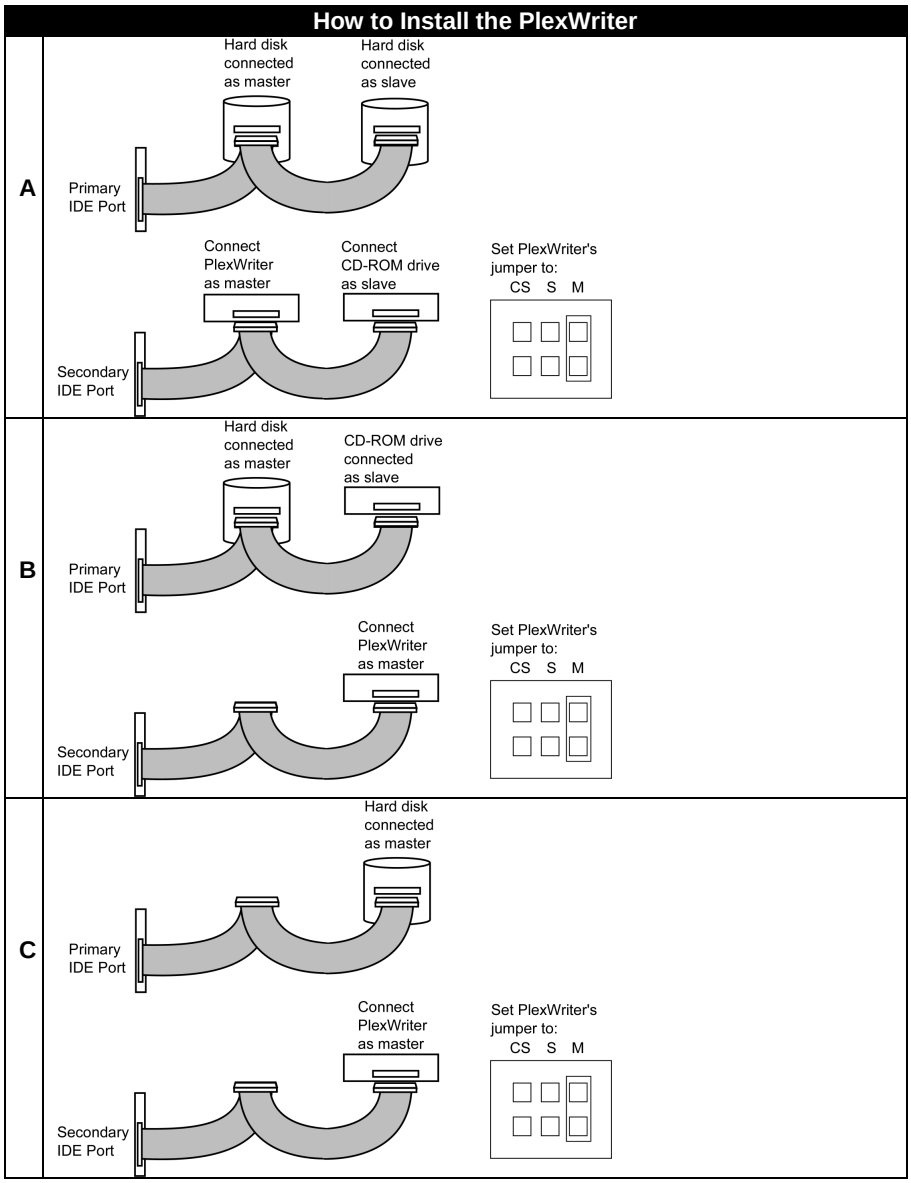

Figure 6: Typical IDE Configurations for Connecting the PlexWriter Drive

About Cable Select

The Cable Select jumper position sets the PlexWriter drive to use the CSEL signal from the IDE interface for configuration. This signal automatically selects the correct Master/Slave setting for the PlexWriter. To use CSEL, you must have:

- A computer that supports CSEL.
- A special CSEL IDE cable.

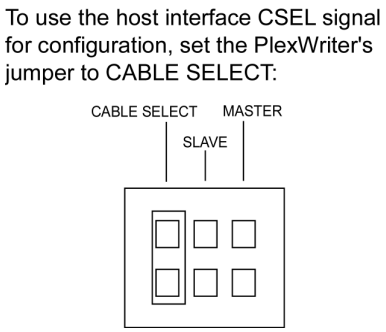
To use the host interface CSEL signal for configuration, set the PlexWriter's jumper to CABLE SELECT:
CABLE SELECT
MASTER
SLAVE

Figure 7: Using the CSEL Signal to Configure the PlexWriter Drive

NOTE: The IDE cable supplied by Plextor doesn't support CSEL.

Install the PlexWriter Drive

Before proceeding to install the PlexWriter drive in your personal computer, double-check your jumper setting.

Record the Serial Number

Record the serial number and TLA code of your drive on the inside front cover of this manual. If your drive came preinstalled, you can get the serial number information using Plextor Manager 2000. See the *Plextor Manager 2000 User's Manual* for instructions.

Mount the PlexWriter Drive in the Computer

You can mount your internal PlexWriter drive in any available bay. You must remove the small panel that covers the bay that you want to use.

CAUTION: Install your PlexWriter horizontally. Plextor does not guarantee the drive's performance in a vertical position.

If you don't have an empty bay, remove the existing IDE CD-ROM drive and install the PlexWriter.

You must make a minimum of two cable connections to your PlexWriter. The two cable connections that you must make are:

- IDE cable
- Power cable

There are also two optional cable connections:

- An analog audio cable connection if you are using a sound board in your computer and plan to connect the PlexWriter's audio output to the audio connector on the sound board.
- A digital audio cable connection if the sound board is equipped with SPDIF or Digital_In and you wish to use the digital audio output from your PlexWriter.

Do You Need Another IDE Ribbon Cable?

The IDE cable is a standard 40-pin flat-ribbon cable, usually with three connectors. One end connects to the IDE port on your computer's motherboard, and the other two connectors are free for attaching peripherals such as a hard disk or CD-ROM drive.

You may need to install another IDE ribbon cable in your computer. You can use the extra IDE cable supplied with your PlexWriter.

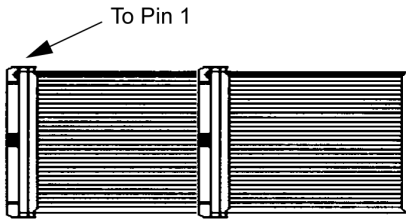

Figure 8: Internal IDE Ribbon Cable

CAUTION: The length of any IDE cable cannot exceed 18 inches.

Do You Need a Power Cable?

In most computers, you will find free power connectors in the computer ready for your use. When you open the computer, check the cable running from your power supply to your hard disk and see if it has extra connectors on it. If so, you can plug one of these into the power connector found on the rear panel of the PlexWriter.

If you do not find any additional connectors (either because they were not supplied or they are all in use), you will have to buy a "splitter" or a "Y-connector." These can also be found at most retail and mail-order computer stores.

To mount the PlexWriter drive:

1. Make sure the power to your computer and any external peripherals are OFF and your computer is UNPLUGGED from its power source.

2. If you haven't already removed your computer's cover, remove it now, following the directions provided by your computer's manufacturer. Typically, this involves loosening or removing several screws on the back panel of your computer and sliding off the cover. See Figure 3 for details.

3. Remove the cover panel from the bay that will hold the PlexWriter drive. To remove the cover panel, pop it out by pressing outward lightly. (In some older computers, you may have to remove screws that hold the panel in place.)

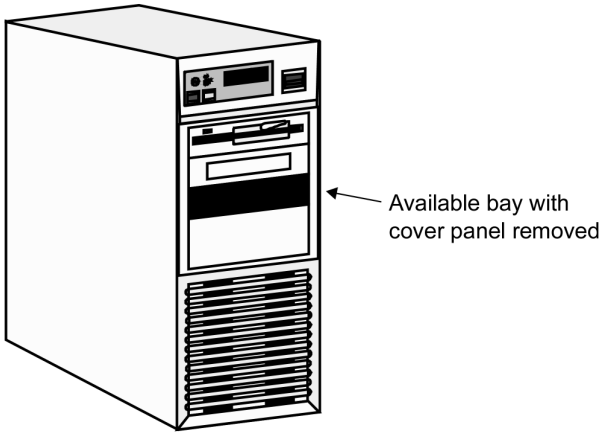

Figure 9: Removing the Cover Panel from a Bay

4. Determine if you must install mounting rails on the sides of your drive. To do so, insert the drive into the open bay. If the drive fits tightly with little or no clearance on either side of the drive, you will not have to use mounting rails. The drive can be mounted directly into your computer. Go to step 6.

NOTE: Plextor does not provide rails. If you need rails, you can obtain them from the computer manufacturer or from a computer supply retail or mail-order store.

5. If you must use mounting rails, fasten the rails to the lower pair of holes as shown in Figure 10. (In some instances, you may need to fasten the rails to the upper set of holes.) After fastening the rails, check their positioning by sliding the drive into the bay before you mount the drive or connect any cables.

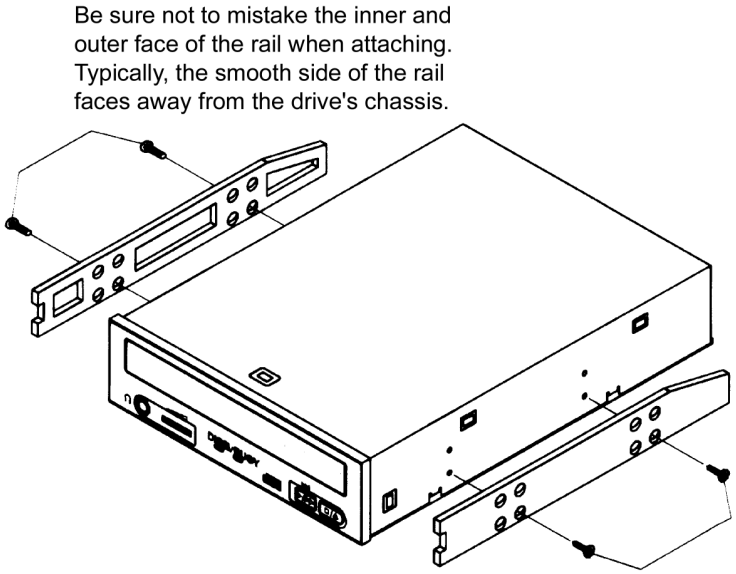
Be sure not to mistake the inner and outer face of the rail when attaching. Typically, the smooth side of the rail faces away from the drive's chassis.

Figure 10: Installing Mounting Rails (if Needed)

6. Plug a free connector on the IDE cable into the IDE connector on the rear panel of the drive before you insert the drive into your computer. Then thread the cable through the front of the open bay and back toward the motherboard. The drive should slide smoothly into the bay. If it does not, check for obstructions in the bay and ensure the side rails are attached properly.

7. If not already connected, attach one end of the IDE ribbon cable to the connector on the motherboard.

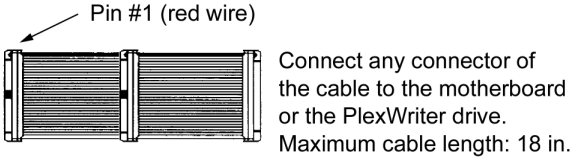

Figure 11: Connecting the IDE Ribbon Cable

CAUTION: It is easy to accidentally plug your IDE ribbon cable upside down into both your drive and the motherboard. Be sure you match the red stripe along one side of the IDE cable to Pin 1 on the motherboard and Pin 1 on the drive. (Pin 1 on the drive is closest to the power connector.) Each connector on the ribbon cable has a "key" in the middle. This key should fit into a slot in the middle of each connector of the motherboard, your PlexWriter, and any other internal IDE peripherals.

8. Double-check your work. You must ensure the side of the IDE cable with the red stripe is matched to Pin 1 on the interface board and on the drive.

   CAUTION: In the case of only one IDE device, you must make certain that one end of the cable is always connected to the IDE connector on the motherboard. The other end of the connector must be connected to a device. The end connector of the cable should never be left unconnected.

9. Connect a power cable from the computer to the DC INPUT connector of the PlexWriter drive. (See Figure 12.) In most computers, you will find free power connectors that are ready for your use.

   Check the cable running from your power supply to your hard disk and see if it has extra connectors on it. If so, you can plug one of these into the power connector found on the rear panel of the PlexWriter.

10. Connect the analog audio cable if you want to use a sound board in your system. This cable runs from the four-pin analog audio output connector on the rear panel of your PlexWriter drive to your sound board. See "Using Sound Boards and Audio Cables" on page 18 for more information about audio cables.

11. Connect a digital audio cable if your sound board is equipped with the Sony/Philips digital interface (SPDIF) or Digital_In, and you wish to use the digital audio output from your PlexWriter. This cable runs from the digital audio output pins on the back panel to the sound board. (This cable is not supplied by Plextor.)

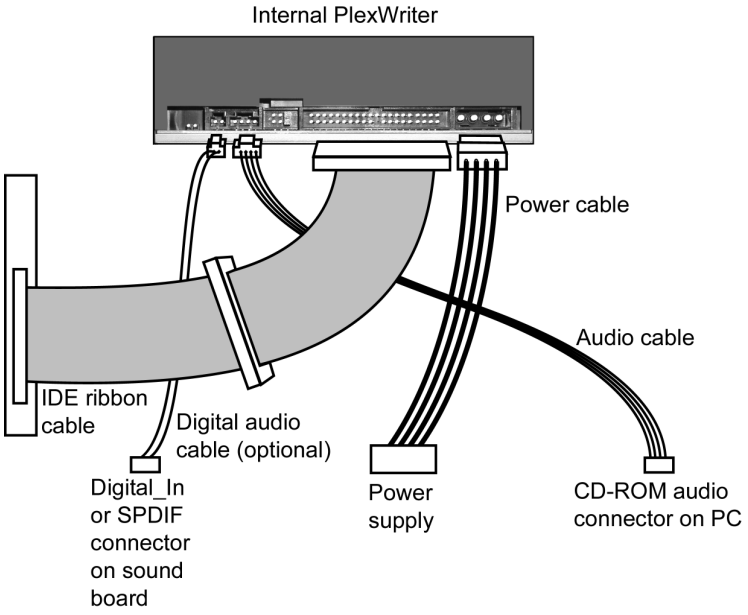

Figure 12: Power and IDE Connections for an Internal PlexWriter Drive

12. Mount the PlexWriter drive in the computer using the four screws were supplied with your drive. Use only these screws.

CAUTION: Do not mount your drive in your computer using screws other than those supplied by Plextor. You may damage the drive if you insert screws that are too long.

Using Sound Boards and Audio Cables

Whichever category your sound board falls into, you will find that the best source of information about installing the sound board in your computer is the board's manual. Once you have successfully installed the sound board in your computer, you can continue below for a description of the different cable connections that need to be made.

Choosing and Connecting Audio Cables

To make audio connections to your PlexWriter, you may have to purchase an audio cable from a computer supply store.

Audio Connection	Cable Required	How to Connect It
MPC audio source	MPC-compliant audio cable	Connect to MPC audio source, and to analog audio output connector at the rear of the PlexWriter.
Sound Blaster or compatible sound board	Sound Blaster-compatible analog audio cable	Connect to Sound Blaster-compatible audio board and to analog audio output connector at the rear of the PlexWriter.
Digital audio output	Cable that's compatible with SPDIF or Digital_In.	Connect to SPDIF or Digital_In connector on sound board (if sound board supports digital audio) and to digital audio output connector at the rear of the PlexWriter.

We can help by recommending several vendors who offer audio cables; see page 51 of this manual.

Make Sure the Drive Is Recognized

After installation, make sure the PlexWriter drive and other IDE peripherals are recognized by your computer. To check whether they are recognized:

To see if the drive is recognized in Windows:

1. Turn the computer ON. After the computer boots up, you should see the Windows display.

2. Open Windows Explorer or My Computer and ensure there is an icon for the PlexWriter, the hard disk, and other CD-ROM drives, if present. The PlexWriter may be D: or E: or another designator.

3. If the PlexWriter drive is not recognized in Windows, reboot the computer and use your computer's setup program to program the BIOS to recognize it.

NOTE: Refer to the computer's documentation for information on how to run the motherboard BIOS setup program.

4. Use the motherboard BIOS setup program to set up IDE Master and Slave designations, as needed for your configuration, on the primary or secondary IDE bus. If the IDE interface is disabled on your computer, you will need to enable it. If a master or slave device is set to "disable" or "none" or a similar designation, change it as appropriate to "enable" or "auto" (or something similar, depending on your setup program).

5. Save and exit your CMOS setup to restart your computer with the new settings.

6. In Windows 95 or 98, once the system comes up click the Start button, then Settings, then Control Panel, then double-click on System icon, then click on Device Manager tab. Click + sign next to the CD-ROM heading and look at the PLEXTOR CD-R PX-W1210A entry underneath.
   –or-

   In Windows NT, click the Start button, then Settings, then Control Panel, then double-click on the SCSI Adapters icon. Click the + sign next to the ATAPI/EIDE driver and look if the PLEXTOR CD-R PX-W1210A entry is there.
   -or-
   In Windows 2000, right-click on the My Computer icon and select Properties. Click on the Hardware tab, then click on the Device Manager button. Click the + sign next to the CD-ROM heading and look at the PLEXTOR CD-R PX-W1210A entry underneath.

7. If you do not see this drive listed as one of the devices, or if it has a yellow diamond with an exclamation point (!), contact your PC or motherboard manufacturer for support and to troubleshoot your IDE controller or driver compatibility or conflicts. It may just be a matter of obtaining the latest or a more appropriate IDE controller driver from the manufacturer.

Enable DMA

To achieve top speeds for reading and writing with your PlexWriter drive, direct memory access (DMA) must be enabled for the drive. To ensure that DMA is enabled:

1. In Windows 95 or 98, click the Start button, then Settings, then Control Panel, then double-click on System icon, then click on Device Manager tab. You see a list of devices in your system.

2. Double-click the CD-ROM icon and choose the PX-W1210A drive by clicking on it once. Then, click on the Properties button and select the Settings tab. You see the drive properties for the PlexWriter.

3. Ensure the DMA box is checked ON, as well as all other check boxes in this window.

4. Click on OK button and then click on the Close button to exit System Properties window.

5. When prompted if you want to restart you computer now, select Yes for this change to be enabled and saved.

NOTE: It is more difficult to enable DMA in Windows NT or 2000. It is best if you contact the motherboard manufacturer directly to get instructions for enabling DMA, and to find out if your IDE controller on the motherboard even supports it.

3. Installing and Using Software

There's one more step before you can begin to use your PlexWriter drive: you need to install special software on your computer. There are two software types:

- **Device driver**: This is a software program that allows your computer to interact with the PlexWriter drive. Drivers are included in Windows 95, 98, NT and 2000 that let you operate your PlexWriter as a CD-ROM device (reader). The device driver is installed automatically by the operating system as long as the IDE interface is enabled in your system's motherboard BIOS.
- **Application software**: These are software programs for specific tasks, such as mastering CDs, backing up your hard disk or files, capturing audio, duplicating CDs, and more. Some of these applications are supplied with your PlexWriter if purchased as a kit from Plextor, while others are available from other vendors.

If you have any problems at all, our technical support staff will help you.

Install Device Drivers

In Windows, your PlexWriter acts as a "CD-ROM Drive" for purposes of installation and setup. In some cases, you will need to install additional software to make use of all of the features of the PlexWriter.

- **Using the PlexWriter on a PC**:
  - **As CD-ROM**: The computer's operating system, whether it is Windows 95, Windows 98, Windows NT or Windows 2000, supplies a generic CD-ROM device driver that allows the PlexWriter to function as a standard CD-ROM drive. You don't need to install anything else.
  - **As a CD-R or CD-RW device**: In order to write to CD-R or CD-RW media, you will need additional software. If you purchased a kit from Plextor, software is supplied.

- **Using the PlexWriter on a Macintosh:** Whether using the PlexWriter as a standard CD-ROM or as a CD-R or CD-RW device, you will need additional drivers or software besides those that are part of the Macintosh operating system. You will need to purchase this software separately. The compatibility list is available from Plextor's web site at www.plextor.com.

Before installing any software, check that all the cable connections between your PlexWriter and computer are correct, that the jumper is set properly, and the PlexWriter is recognized by your system.

Install Plextor Applications Software

Windows 95, 98, NT and 2000 can immediately operate your PlexWriter drive as a CD-ROM device (reader) and permit the drive to be recognized by the computer's operating system. In order to take advantage of the PlexWriter's ability to *record* on CD-R or CD-RW media, however, you will also need packet writing and mastering applications software on your PC. You can also check the compatibility list on the Plextor web site at www.plextor.com, for software that supports the PlexWriter under other operating systems. You will need to purchase this software separately.

If you purchased your PlexWriter as part of a Plextor kit and you have a PC, much of the software you need is included. Plextor has developed several utilities to help you get the most from your PlexWriter drive.

Plextor Manager 2000

This unique suite of audio management and drive control applications puts you in the CD driver's seat. A variety of distinctive modules allow you to listen to, record and even create your own playlists using a standard and digital audio file formats. Rip the finest quality audio using digital audio extraction at high speed. Need to make a duplicate CD? A simple mouse click and you're done. Control every aspect of the drive from spinup and spindown timeout to eject lock. Plextor Manager 2000 also gives you information on the drive's configuration and the media inserted into it.

See the *Plextor Manager 2000 User's Manual* for details.

CD Res-Q

For backup and disaster recovery, CD Res-Q lets you create an image of your hard disk drive on secure, reliable CD-R media. By spanning CDs, you can back up your entire hard drive. Additional features include making a CD bootable, choice of compression, hard drive or image file integrity verification, and more.

NOTE: CD Res-Q backup works only with Plextor CD-R and CD-RW drives. You can restore from any drive.

Get CD Res-Q™ Directly from Plextor!

CD Res-Q™ software is available for purchase directly from Plextor. To purchase CD Res-Q by phone, please call us at 408-980-1838, extension 3.

To purchase CD Res-Q by e-mail, send your request to sales@plextor.com.

Other Applications Software

Other valuable applications software—which may already be included if you purchased a kit from Plextor—lets you use your PlexWriter drive in exciting new ways.

- **Packet writing software**: This type of application lets you use your PlexWriter as an enormous floppy drive. You can drag and drop files straight to a CD-R or CD-RW disc.

- **Mastering software**: In conjunction with your PlexWriter drive, mastering software lets you create discs in specific formats, such as audio, data, mixed mode, and others.

NOTE: If you use a CD-R disc with packet writing software, you can't use that disc later with mastering software (and vice versa). CD-RW discs also must be used with either one type of software or the other. You can, however, erase a CD-RW disc and use it again—and once a disc is erased, you can use it with *either* type of software.

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4. Using Your PlexWriter

This chapter explains how to use your PlexWriter drive and how to load, handle and care for your CDs.

CAUTION: Ensure your PlexWriter is in a horizontal position. Plextor does not guarantee the drive's performance in a vertical position.

What Media to Use

Use the right media! Your PlexWriter drive's capabilities change depending on which type of compact disc you use. It currently supports these types:

- **CD-ROM**: You can immediately play or read prerecorded discs, such as audio CDs and data discs.
- **CD-R**: Recordable CD. You can record on these discs, but only once. You can also read them.
- **CD-RW**: High-speed ReWritable CD. These discs support recording and re-recording (up to 1,000 times). You can also read them.

NOTE: Firmware upgrades for your PlexWriter drive are available as downloads from the Plextor web site. Please check the web site at www.plextor.com.

Tray Loading and Operation

To load and unload the tray:

1. While the PlexWriter drive is powered up, push the Stop/Eject button on the front panel. The tray drawer slides out in 3–4 seconds.
2. Lay a blank CD in the depression in the tray, label side up. The CD should lie flat in the tray.

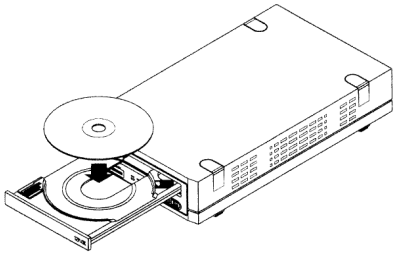

Figure 13: Loading the Tray

3. Press the Stop/Eject button again and the tray will slide shut within seconds.

NOTE: Always use the Stop/Eject button to close the tray in a smooth and secure manner. Closing the tray by pressing the front of the drawer by hand is not recommended and risks damage or premature wearing of the mechanism.

Handling CD Media

Take care when handling blank CD-R and CD-RW media. Dust, scratches, and fingerprints on the data side of the disc can cause write errors during recording. When picking up or holding blank media you can either place your fingers along the outer edge of the disc, or place one finger through the center hole and one finger on the outer edge. Once you have finished creating a disc, label it by writing on the top using permanent ink.

NOTE: We do not recommend placing self-sticking CD-R labels on the disc. The weight of the label may unbalance the disc and cause write errors during recording or read errors during reading.

Cleaning Discs

For proper read and write performance, your CD-R, CD-RW, and CD-ROM discs must be clean. Trying to record on a dirty disc may result in a failed session and ruin the disc.

To clean the disc, wipe the disc using a clean, soft cotton cloth to remove surface dirt such as fingerprints. Use a straight-line motion, wiping from the center out. Do not wipe the disc in a circular motion.

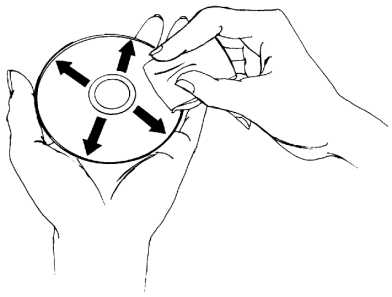

Figure 14: Wipe the Disc from the Center Outward

HINT: Keep your frequently used discs in jewel cases at all times to prevent them from becoming dirty or damaged.

Playing Audio CDs

In order to listen to an audio CD, connect an audio cable to the analog audio connector on the rear of the drive and connect the other end to your sound board.

There are two types of audio you may encounter:

- **CD-Audio**: This comes from audio discs (like the ones used by your home stereo) that are translated directly by your PlexWriter into sound. You do not need a sound board to hear this audio. Simply plug in a set of headphones or powered speakers into the headphone jack on the front of your drive, as shown in Figure 15. You can control audio playback through software, and adjust the volume with the front-panel volume control.

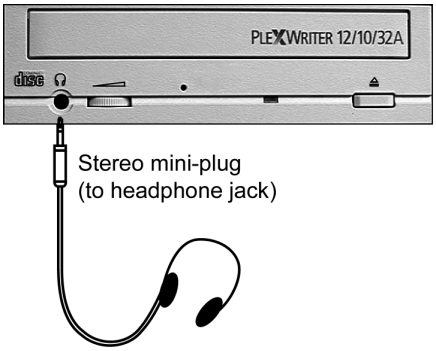

Figure 15: Connections for Playing Audio Using the Headphone Jack

- **Sound board audio**: This comes from data files, such as a WAV, WMA or MP3 file, that is transferred from the CD via the IDE interface in your computer. The sound board translates the data into sound. If you do not have a sound board, you will not be able to hear this form of audio from your PlexWriter.

  To listen to music through the computer's sound board, you can control volume with the volume control on the Windows Taskbar. You can also mute the sound on your sound board and listen to music through headphones or self-powered speakers.

NOTE: The volume control on the front panel of your drive adjusts only the sound level of the headphone jack. It has no impact on the volume level of the rear panel audio outputs.

Playing a CD Using Plextor Manager 2000

For PC users, Plextor Manager 2000 software provides several unique and powerful capabilities for playing audio. For installation and operating instructions, refer to the separate *Plextor Manager 2000 User's Manual* and README files.

Playing a CD Using Other Utilities
Other alternatives for playing CDs include audio utilities designed into your operating system (Media Player or CD Player in Windows, for instance) or various other utilities that can be purchased commercially.

Playing a CD On a Macintosh
Mac users can run a program such as CDT Remote (which is typically included with FWB's CD-ROM toolkit).

Writing to CD-R and CD-RW Media

In conjunction with your PlexWriter drive, mastering and packet writing software such as EasyCD Creator and DirectCD allow you to write audio, video, data, or other information to writable (CD-R) or rewritable (CD-RW) media. The PlexWriter 12/10/32A writes to new high-speed CD-RW media, as well as to conventional CD-RW media.

IMPORTANT: Most CD-ROM drives manufactured since 1997 can read both conventional and the new high-speed CD-RW discs. Drives manufactured before 1997 cannot read CD-RW disc.

Plextor CD-ROM drives beginning with the 12/20PleX and newer can read CD-RW discs, including the new, high speed discs.

Advantages of BURN-Proof Technology

The PlexWriter 12/10/32A incorporates BURN-Proof (Buffer UnderRun Proof) technology , which guarantees that you can write discs at high speed, and still use your computer for other tasks while you're writing.

BURN-Proof™

The Problem: When you use a CD Recordable or CD ReWritable drive to write to a CD-R or CD-RW disc, the disc needs a constant, steady flow of data to make a successful write. If this flow is interrupted, you wind up with a disc that is unusable. You've just created a coaster for your table!

To prevent the interruption of data, every CD-R/RW drive has a *buffer*, a memory chip that acts as a kind "holding area." (Typically, the buffer size is 2 MB or 4 MB.) However, when you write at high speeds, or if you use other applications (like surfing the Internet) while writing, this buffer can be emptied quickly. And that produces what is known as "buffer underrun error." Simply put, the buffer is drained of data, the flow to the disc is interrupted—and you wind up with a useless disc.

The Solution—BURN-Proof: This revolutionary technology compensates for any interruption in data flow to the disc. BURN-Proof technology "remembers" where writing stopped on the disc when the data flow was interrupted, then restarts writing in the same place once the data is available again. The result is that your disc is written successfully.

What BURN-Proof Means to You: BURN-Proof technology in your PlexWriter 12/10/32A means you can safely use your computer for other things while you're writing to a CD-R or CD-RW disc. It reduces the dreaded "coaster effect," and lets you multitask freely and easy without bringing the burn to a screeching halt. All of this is done seamlessly, so you successfully create CDs on the first attempt.

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5. Maintenance and Troubleshooting

This chapter explains maintenance and troubleshooting procedures for your PlexWriter drive.

With proper maintenance, you can prevent problems. If problems arise, you can often solve many simple problems on your own, rather than wait for assistance from a Plextor representative.

TIP: Read all of this section that pertain to you (PC or Macintosh). Many of the problems discussed happen only rarely, and others may seem as if they do not pertain to you. However, if you are familiar with the variety of problems that can occur, you will be better prepared to deal with them if they do occur.

Upgrading Firmware

Plextor creates firmware revisions to meet the peculiar needs of large computer manufacturers. It is rare that these will impact the performance or operation of your PlexWriter drive. However, we advise that our customers always update drives with latest available firmware. Before troubleshooting a possible problem with your drive please make sure to visit our web site at www.plextor.com to check if you have the latest firmware.

To obtain new firmware for your PlexWriter drive:

1. Go to the Plextor web site at www.plextor.com.
2. Look for firmware upgrades in the Support area, on the Downloads page. There is a description of the latest firmware revision and its intended use.
3. Download the firmware to your computer.

To upgrade firmware:

1. Run the executable file that you downloaded from Plextor's web site.
2. Accept all defaults by continuing to click on the "Next" button until you see the message:
   `Firmware update has completed.`

If You Need to Disable DMA

If the firmware upgrade does not complete successfully, you may need to disable DMA. In this case, please follow the appropriate procedure below.

To disable DMA in Windows 95 and 98:

1. Click the Start button, then Settings, then Control Panel, then double-click on System icon, then select the Device Manager tab. You see a list of devices in your system.

2. Double-click the CD-ROM icon and choose the PX-W1210A by clicking on it once. Then, click on the Properties button and select the Settings tab. You now see the drive properties for the PlexWriter.
3. Disable DMA by click the DMA checkbox OFF, then click OK.
4. Close the System Properties window by clicking on the Close button.
5. When prompted, reboot your system.
6. After the firmware upgrade is completed, use this same procedure (but check DMA on) to enable DMA again before using the PlexWriter.

If you have Windows NT or Windows 2000:
Contact your PC or motherboard manufacturer for instructions. It is not simple to enable and disable DMA in Windows NT and 2000. In fact, some IDE controllers and drivers do not even support it. Your PC or motherboard manufacturer is the best source for this information.

Troubleshooting

If you have problems during or right after installation of your PlexWriter drive, use these tips to help find the problem. You can also use these charts to help find problems that develop in existing installations.

Start here if you're a PC user. Mac users should start with page 42 and come back here if they don't find the answer.

Troubleshooting: General

Symptoms
PlexWriter drive not recognized by computer.

Possible Cause #1
- IDE cable is not connected properly.

Solution #1
- Ensure IDE cable is connected.
- Verify that connectors on motherboard and drive do not have bent pins.

Possible Cause #2
- Drive or IDE bus is not enabled in the computer’s BIOS.

Solution #2
- Ensure the IDE port is enabled and set properly in motherboard’s BIOS. See “Make Sure the Drive Is Recognized” on page 18 for more details.

Possible Cause #3

- Jumper conflict.

Solution #3

- Check jumper for the PlexWriter drive and the other peripheral devices (hard disk or CD-ROM drive) on the same IDE cable. Ensure the jumper for one device is set to master and the other to slave. Two devices on one cable cannot be set to the same setting.

Possible Cause #4

- Wrong cable with jumper set to Cable Select.

Solution #4

- Make sure that a CSEL-compatible IDE cable is used if you want to use the PlexWriter with jumper set to Cable Select.

Possible Cause #5

- Power connector is not attached to PlexWriter or does not work.

Solution #5

- Ensure the computer's power cable is securely attached to the PlexWriter's power connector.
- When the computer's power is ON, confirm that the PlexWriter's indicator LED is illuminated briefly, then is extinguished.
- Connect a different power cable to PlexWriter.

Symptoms

PlexWriter does not respond (lights or eject button).

Possible Cause #1

- No power.

Solution #1

- Ensure the power cable is connected securely to the PlexWriter's power connector.
- Try a different power cable.

Possible Cause #2

- IDE cable isn't connected properly.

Solution #2

- Ensure that the IDE cable is securely inserted, and is not damaged.
- Check the connector pins to ensure they are not bent.

Symptoms
Cannot eject tray.

Possible Cause #1
- Tray is locked by Plextor Manager 2000 software.

Solution #1
- Refer to Plextor Manager 2000 manual how to unlock the eject feature.

Possible Cause #2
- CD was not properly set into tray and is stuck.

Solution #2
- Turn OFF the computer power. Then, at the PlexWriter's front panel, insert a thin object such as a paper clip into the emergency eject hole and eject the tray.

Troubleshooting: Read

Symptoms
PlexWriter drive has read errors, may not respond to a DOS DIR command, or cannot run a program.

Possible Cause #1
- Defective CD-ROM, CD-R, or CD-RW disc.
- A fingerprint, contaminants, or scratches on the disc's surface may prevent the drive from reading or writing data.

Solution #1
- Clean the disc as detailed on page 26.
- Try a different disc.

Possible Cause #2
- Disc is badly manufactured.

Solution #2
- Try a different disc.

Possible Cause #3
- Bad connection between the PlexWriter drive and the motherboard.

Solution #3
- Inspect the IDE cable and drive for recessed, broken, or bent pins.
- Inspect the IDE ribbon cable for any signs of distress, such as kinking.

Possible Cause #4
- CD-Audio disc in the drive. Audio CDs do not have computer data, so typing computer commands in DOS while an audio disc is in your drive gives an error message.

Solution #4
- Use a data CD in the PlexWriter drive.

Possible Cause #5
- Disc is inserted upside down.

Solution #5
- Eject the disc and load it with the label or text side up.

Possible Cause #6
- Blank CD-R or CD-RW disc is inside the drive.

Solution #6
- Remove the disc from the drive and test it by using another disc

Symptoms
Cannot use other CD-ROM drives to initialize or discs written by PlexWriter.

Possible Cause #1
- Trying to read a CD-RW disc in a CD-ROM drive that does not support it.

Solution #1
- Use the PlexWriter to read CD-RW discs or use a different CD-ROM drive. Only CD-ROM drives manufactured after 1997 can read CD-RW discs.

Possible Cause #2
- UDF reader is not installed on the system to read CD-RW or packet written discs from a CD-ROM drive.

Solution #2
- Refer to your packet writing software manual for how to obtain a UDF reader and install it on the computer where you need to access these discs.

Possible Cause #3
- Session was left open on a CD-R disc and does not have a Table of Contents.

Solution #3
- Place this disc back into PlexWriter and use the same software originally used to write to it. Then close the session/disc.

Symptoms
Excessive noise.
Excessive vibration.
Slow read performance.

Possible Cause
- CD is poorly balanced. Poorly manufactured discs or discs with poorly distributed ink on labeling cause significant vibration at high speeds because they are out of balance. Read errors may also occur.
- If the disc label (especially adhesive labels) adds more weight to one area of the disc than another it can also cause the disc to be out of balance.

Solution
- Remove any adhesive label.
- Clean the disc as detailed on page 26.

- In Windows 95, 98, NT or 2000 use Plextor Manager 2000 to lower the drive speed.
- If there is no foreign substance on the disc, contact the disc manufacturer for a replacement.

Symptoms
Can read only the last session of a multisession CD-R or CD-RW disc.

Possible Cause
- "Import previous session" or a similar feature was not enabled when the multisession disc was created.

Solution
- Use CD-R or CD-RW mastering software to import session(s). Such features may vary in name depending on the software being used. Please refer to the appropriate manual regarding this feature.

Troubleshooting: Audio

Symptoms
When playing an audio CD, you do not hear sound even though everything appears to be functioning normally.

Possible Causes
- Sound board volume too low.
- Mixer settings for sound board set too low.
- Need sound board.
- Need audio cable connection.
- Sound board not properly configured.

Solution
- Each sound board has a different setting for each input source, including one for CD-Audio. Run your sound board's mixer program and verify that the volume is turned up or not muted. You can do this by double-clicking on the speaker icon on your computer's task bar.
- Check your system configuration to see if the sound board settings (such as IRQ, memory, etc.) are conflicting with other devices on the system.
- Check if all the necessary drivers and multimedia devices required by your sound board are installed.
- Make sure the audio cable is properly connected between PlexWriter and sound board.

Symptoms
Low sound level from PlexWriter drive.

Possible Cause #1
- Improper audio cable connection between PlexWriter drive and sound board.

Solution #1
- Check the cable connection from PlexWriter to sound board.

Possible Cause #2
- Low levels from audio mixer.

Solution #2
- Check the master, CD and line levels of all audio mixers.

Troubleshooting: Writing Discs

Symptoms
Cannot write to CD-R or CD-RW disc.

Possible Cause #1
- You are using authoring software other than that bundled with your PlexWriter.

Solution #1
- Use the authoring software provided with the PlexWriter.
- To use other types of authoring software, contact the supplier and ensure the software supports the PX-W1210TA CD-RW drive. Supported software lists can also be found on the Plextor web site at www.plextor.com.

Possible Cause #2
- CD-R or CD-RW media is not supported.

Solution #2
- Use CD-R or CD-RW media recommended by Plextor. Supported media lists can also be found on the Plextor web site at www.plextor.com.

Possible Cause #3
- Disc inserted upside down.

Solution #3
- Eject the disc from tray and load it with the label side up.

Possible Cause #4
- Lack of hard disk capacity.
  This varies with different software packages. Contact the software vendor or check their documentation for recommendations.

Solution #4
- Delete files from your hard disk to free up sufficient space; or use another hard disk.

Symptoms
CD-R or CD-RW software cannot detect PlexWriter

Possible Cause #1
- Power connector is not attached to PlexWriter.

Solution #1
- Ensure the computer's power cable is securely attached to the PlexWriter's power connector.
- When the computer's power is turned ON, confirm that the PlexWriter's indicator LED is illuminated briefly, then is extinguished.
- Try connecting another power cable to the PlexWriter.

Possible Cause #2
- IDE cable isn't connected properly.

Solution #2
- Ensure that the IDE cable is securely inserted, and is not damaged. Check the connector pins to ensure they are not bent.

Possible Cause #3
- Drive or IDE bus is not enabled in the computer's BIOS.

Solution #3
- Ensure the IDE port is enabled and set properly in motherboard's BIOS. See "Make Sure the Drive Is Recognized" on page 18 for more details.

Possible Cause #4
- Jumper conflict.

Solution #4
- Check jumper for the PlexWriter drive and the other peripheral devices (hard disk or CD-ROM drive) on the same IDE cable. Ensure the jumper for one device is set to Master and the other to Slave. Two devices on one cable cannot be set to the same setting.

Possible Cause #5
- Wrong cable with jumper set to Cable Select.

Solution #5
- Make sure that a CSEL-compatible IDE cable is used if you want to use the PlexWriter with jumper set to Cable Select.

Symptoms
Writing error occurs.
Buffer underrun.
Does not record at high speeds, such as 8X and 12X.

Possible Cause #1
- DMA is not enabled on your computer.

Solution #1
- In Windows 95 and 98, click on Start button, then select Settings/Control Panel, then double-click on System icon, then click on Device Manager tab, then double-click on CD-ROM icon. Select PlexWriter and click on Properties. Then click on the Settings tab and enable DMA. Reboot your system.

NOTE: If you have Windows NT or 2000, contact your PC or motherboard manufacturer for instructions. It is not simple to enable and disable DMA in Windows NT and 2000. In fact, some IDE controllers and drivers do not even support it. Your PC or motherboard manufacturer is the best source for this information.

- Make sure DMA Mode 2 or PIO Mode 4 is enabled on your motherboard.

Possible Causes #2
- Network is being used.
- Mouse was moved or Windows screensaver activated while writing.
- Other applications are running.
- Power save mode is active.

Solution #2
- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- If problems occur when writing, reduce the load on CPU resources. Some ways to do this are:
  - Log off from the network.
  - Don't use the mouse.
  - Disable the screensaver or power save mode.
  - Exit all other applications.

Possible Cause #3
- Shortage of PC memory. If there is insufficient main memory in the PC, data may be swapped to the hard disk, and this can cause a buffer underrun.

Solution #3
- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- Increase the PC's main memory capacity.

Possible Cause #4

- PlexWriter and other IDE CD-ROM drive are connected on the same cable.

Solution #4

- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- Use the image writing method (safe mode) or record at a lower speed. (When using on-the-fly writing to write from another IDE device on the same bus to the PlexWriter, the IDE bus is very busy, and this may cause writing errors. Whether or not you get errors often depends on your system speed and configuration.)
- Put the IDE CD-ROM drive on the primary bus and PlexWriter as the only device on the secondary bus (Master).

Possible Cause #5

- PlexWriter and hard disk are connected on the same cable.

Solution #5

- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- Remove the PlexWriter from the cable and re-connect it to a secondary IDE port.

Possible Cause #6

- Automatic thermal recalibration triggered.
  Some high-speed hard disks are equipped with an automatic thermal re-calibration function.)

Solution #6

- Use another hard disk in this case.

Possible Cause #7

- Defective CD-R or CD-RW media. CD-R or CD-RW media may be dirty, scratched, or damaged.

Solution #7

- ReWrite using another CD-R or CD-RW disc.

Symptom

Cannot add information to CD-R or CD-RW disc.

Possible Cause #1

- The CD-R or CD-RW disc was originally written using other software. If the software is different, incompatibility errors may occur.

Solution #1

- Always use the same authoring software to add content to a disc.

Possible Cause #2

- Not enough disc capacity.
  Capacity of a standard 74-minute CD is limited to 650 MB.

Solution #2

- Use different CD-R or CD-RW media if the capacity is insufficient.

Possible Cause #3

- The disc is written with a CD-R or CD-RW drive from another vendor.

Solution #3

- Use a different CD-R or CD-RW disc.
- Try to use same drive to add more data to CD-R or CD-RW disc.

Symptoms

Cannot write at higher speeds, such as 8X and 12X.

Possible Cause #1

- Using poor quality media.

Solution #1

- Use the CD-R/RW media recommended by Plextor. Supported media lists can also be found on the Plextor web site at www.plextor.com.

Possible Cause #2

- Buffer underrun occurring.

Solution #2

- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- Reduce the load on CPU resources. Some ways to do this are:
  - Log off from the network.
  - Don't use the mouse.
  - Disable the screen saver or power save mode.
  - Quit all other applications except the authoring software.

Possible Cause #3

- Using CD-RW media. This drive does not support 12X speed with CD-RW media. It supports up to 10X CD-RW recording.

Solution #3

- Use CD-R media for 12X recording.

Possible Cause #4

- Defective CD-R media.

Solution #4

- CD-R media may be dirty, scratched or damaged. Rewrite using another CD-R disc.

Possible Cause #5

- Using authoring software other than that bundled with the PlexWriter.

Solution #5

- To use other types of authoring software, contact the supplier and ensure the software supports the PX-W1210TA CD-RW drive. Supported software lists can also be found on the Plextor web site at www.plextor.com.

Possible Cause #6

- CD-ROM drive used cannot read data fast enough to record at higher speeds, such as 8X and 12X.

Solution #6

- If necessary, enable BURN-Proof in the recording software. (Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.)
- Record to the hard disk, then record from the hard disk to the PlexWriter.

Troubleshooting for Macintosh Users

Symptoms

Drive will not operate as CD-ROM, CD-R or CD-RW device.

Possible Cause

- Whether using the PlexWriter as a standard CD-ROM, CD-R or CD-RW device, you will need additional software and device drivers that are not part of the Macintosh operating system.

Solution

- You will need to purchase additional software. Supported software lists can also be found on the Plextor web site at www.plextor.com.

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Symptoms

Drive not responding.

Possible Cause

- Bad connection between PlexWriter drive and IDE interface.

Solution

- Check the IDE cable to ensure it is seated properly and has no bent pins.

6. Frequently Asked Questions about Recording

What media should I use for my PlexWriter?
Supported media lists can also be found on the Plextor web site at www.plextor.com.

When can I use CD-RW media?
CD-RW media can only be used for writing in ReWritable drives. It is readable only in ReWritable drives or newer MultiRead CD-ROMs with UDF readers installed. UDF readers are available from software companies that develop packet writing software. With CD-RW media you can:

- Use as if it were a large capacity floppy disc.
- Transport files to and from work.
- Copy your important data periodically.
- Store large projects as you develop them.

What writing speed can I expect with CD-RW media?
The PlexWriter 12/10/32A supports new high-speed CD-RW media, and can write to this media at speeds from 4X to 10X. You can also use conventional CD-RW media in this PlexWriter; in this case, the drive writes at 2X to 4X speed.

When should I use CD-R media?
CD-R media can be read in most CD-ROM, CD-Recordable or CD-ReWritable drives. Use CD-R media to:

- Permanently archive important data.
- Copy your music to CD for personal use.
- Create specific format discs.
- Create disc for distribution to others.
- Share non-editable presentations

Why doesn't CD-Copier work?
Some possible reasons are:

- Some CD-ROM drives are not fast enough for direct copying to the PlexWriter. They cannot stream data fast enough to record at the PlexWriter's maximum speed or are not capable of digital audio extraction at high speed.
- The CD-R disc being used is poor quality, scratched, badly manufactured, or has oily fingerprints.
- Some CDs have copy prevention or other feature that does not allow direct CD-to-CD duplication.
- Software may not support that disc format.

What causes buffer underrun errors?
Recording CDs requires a source device to provide an uninterrupted stream of data. A buffer underrun occurs when the data stream is interrupted. This can occur if:

- Another application interrupts the writing process.
- The write speed is set higher than the source drive can supply data.
- Lack of computer memory.
- Poor quality discs, scratched discs, discs with fingerprints, or badly manufactured discs.

Buffer underrun errors are seldom a problem with the PlexWriter 12/10/32A, thanks to its remarkable BURN-Proof technology. To eliminate buffer underrun errors, simply make sure BURN-Proof is enabled in the recording software. Some software packages, such as Adaptec's Easy CD Creator 4.02, have BURN-Proof support for the PlexWriter drive permanently on, while other software allows the user to select whether it is on or off.

Appendix A: PlexWriter Specifications

Disc Specifications

Useable Formats	CD-DA; CD-ROM (Mode 1); CD-ROM XA (Mode 2: form 1 or form 2 and mixed form); CD-ROM (Mixed Mode); Photo CD; VideoCD; CD-I (MPEG movies); CD-Extra (CD-Plus); CD-G; CD Text
Recording Modes	Track-at-Once, Disc-at-Once, Session-at-Once, Multisession, incremental packet writing, fixed and variable packet writing
Disc Diameter	12 cm diameter (Recording time 74 min, 79 min)

Recommended Media

▪ CD-R: 12X	Taiyo Yuden, TDK, Ricoh, Mitsubishi Chemicals, Kodak, Maxell, Pioneer
▪ CD-R: 8X, 4X, 1X	Taiyo Yuden, TDK, Ricoh, Mitsui Chemicals, Kodak, Fuji Photo Film, Sony, Imation, Philips, Maxell, Mitsubishi Chemicals
▪ CD-RW: 10X–4X	Ricoh, Mitsubishi Chemicals (All are rewritable up to 1,000 times.)
▪ CD-RW: 4X–2X	Mitsubishi Chemicals, Ricoh, TDK (All are rewritable up to 1,000 times.)

Performance Specifications

Sustained Read	14X – 32X CAV: 2.1 – 4.8 MB/sec (Mode 1, XA Mode 2, Form 1) 14X – 24X PCAV: 2.1 – 3.6 MB/sec (CD-DA) 10X–24X CAV: 1.5 – 3.6 MB/sec 8X CLV: 1.2 MB/sec 4X CLV: 600 KB/sec 1X CLV: 150 KB/sec
Sustained Write	12X CLV: 1.8 MB/sec (CD-R) 10X CLV: 1.5 MB/sec (CD-RW) 8X CLV: 1.2 MB/sec (CD-RW) 8X CLV: 1.2 MB/sec (CD-R, CD-RW) 4X CLV: 600 KB/sec (CD-R, CD-RW) 2X CLV: 300 KB/sec (CD-RW) 1X CLV: 150 KB/sec (CD-R)
Burst Read/Write	16.6 MB/sec (read) 16.6 MB/sec (write)
Average Access Time, Random Read	150 ms (32X PCAV speed)
Data Buffer	2 MB
Spindle Motor	Brushless
Error Rate	Mode 1: 1 Block/10^{12} Bits Mode 2: 1 Block/10^{9} Bits (Average)

Front Panel

Eject	Eject Button; Manual Emergency Eject; Software Eject
Indicator Light	Green: Power on and disc is in drive Yellow: Initializing or reading disc Blinking orange: Writing data to disc
Disc Loading	Auto
Headphone Jack	Stereo mini-jack, 0.8V at 32 ohms
Volume Control	Wheel knob
CD-Audio Controls	Stop/Eject

Rear Panel

Power Supply	DC +5V: Average 500 mA during writing DC +12V: Average 600 mA during writing
Interface Connector	IDE bus, 40-pin flat ribbon type. Interface complies with ANSI X3T13/1153D (ATA/ATAPI-4). Supports CD-ROM commands, including special commands for CD-R and CD-RW.
Analog Audio Output	Stereo analog output, Molex connector (L*G*G*R), MPC3 standard
Digital Audio Output	Digital audio output for input to SPDIF or Digital_In input
Jumper Switch	Master, Slave, Cable Select

Environmental Conditions

Operating Temperature	0 to 45 degrees Celsius
Performance Guarantee Temperature	5 to 40 degrees Celsius
Operating Humidity	20% to 80% (non-condensing)
Storage Temperature	–40 to 60 degrees Celsius
Storage Humidity	20% to 95% (non-condensing)

Dimensions and Weight

Dimensions (W/H/D) (excluding front panel)	5.78" x 1.64" x 7.95" 146mm x 41.3mm x 202mm
Weight	2.5 lbs. (1.2 kg)

Reliability

MTBF	60,000 Power On Hours
Tray Loading	200,000 Load Cycles

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Appendix B: Technical Support

Store Plextor's e-mail, web site, phone, and fax numbers in a convenient location. Keep your drive's serial number and a copy of your sales receipt handy as well.

If you experience a problem while installing or operating your PlexWriter drive, please refer first to the relevant sections of this manual regarding setup and installation (Chapters 1–3). If you do not uncover the solution there, please refer next to the maintenance and troubleshooting chapter that begins on page 31. It contains solutions to the most common types of problems fielded by our technical support staff. You may also wish to refer to the Frequently Asked Questions (FAQ) section of our web site to assist you in troubleshooting the problem on your own.

NOTE: We encourage you to go the Plextor web site (www.plextor.com) before attempting to contact Technical Support. The answers to the most common questions callers ask can be found quickly in the support area. Select PlexHelper for online troubleshooting or FAQs for common questions.

If you have not been successful in your quest, our Technical Support Department will help you solve problems that relate specifically to your PlexWriter drive. In many cases, a problem that appears to be caused by your PlexWriter actually originates in another part of your computer. In such instances, our technical support staff will try to help you identify the part at fault and will refer you to the manufacturer of that part for further assistance.

How to Contact Us

There are several ways for you to contact Plextor's Technical Support Department:

- Visit our web site (www.plextor.com) for answers to Frequently Asked Questions.
- Send us e-mail at support@plextor.com, or send a fax to the attention of the Technical Support Department at 408-986-1010. Include your telephone number and the hours during which you can be reached. Be as detailed as possible in describing your problem. Please include system configuration, hardware and software, as well as versions of drivers used.
- Call 800-886-3935 and select the technical support extension.

Before You E-mail/Log On/FAX/Call

Please gather as much of the following information as possible before contacting us.

- The serial number and TLA number of your PlexWriter. Your serial number can be found both on the warranty card that accompanied the drive and on a label on the drive itself. The TLA number appears both on the drive label and on a sticker at the rear of internal drives.
- The version of Plextor Manager you are using, if applicable.
- The latest version of firmware you loaded onto the drive, if applicable.
- The version of the Windows, Mac, or UNIX operating system you are using.
- The brand name and model number of your computer (e.g., Dell 466/NP, Micron P66PCI Powerstation, ALR Evolution V, Apple Macintosh, Performa 575, etc.).
- The type of VGA, Super VGA, or other graphics board you use.
- Brand name and model number of any other peripherals you have installed or connected to your computer (e.g., CD-ROM, scanner, fax board, network board).

Returns

You must receive an RMA (Returned Materials Authorization) number from our Technical Support Department before any Plextor drive can be returned for repair or replacement. Any drive sent to Plextor without an RMA number will not be accepted. Drives must be sent postage prepaid. We recommend that you insure your shipment, as Plextor cannot be held responsible for any damage that may occur during shipment.

Appendix C: Helpful Contacts

Use the contacts below for CD-R and CD-RW software and components, and for PC vendors.

Contacts for CD-R and CD-RW Components

Company	Phone	Fax	Product	Web Address
Adaptec	408-945-8600	408-262-2533	CD-R software	www.adaptec.com
AMC	800-390-9328	425-861-8391	Devices, cables, acc.	cust.svc@amcdirect.com
CeQuadrat	800-330-6734	650-843-3799	CD-R software	www.cequadrat.com
Creative Labs	405-742-6600	405-742-6633	Sound boards	www.creativelabs.com
Creative Digital Research	408-255-0999	408-255-1011	Windows, UNIX CD-R software	www.cdr.com
Diamond	800-468-5846	408-325-7408	Sound boards	www.diamondmm.com
FWB	650-482-4800	650-482-4858	Mac device drivers	www.fwb.com
Pacific Inter Connects	408-654-0234	408-982-9329	Audio cables	www.piccable.com
Plextor	408-980-1838	408-986-1010	Recommend boards, audio cables, all other technical support needs	support@plextor.com BBS: 408-986-1569
Testa CD Labs	520-531-1880		CD-Tach performance benchmarks	http://tcdlabs.simplenet.com

Contacts for PC Vendors

Company	Web Address
IBM	http://ibm.com
Dell	http://dell.com
Gateway	http://www.gw2k.com
Compaq	http://compaq.com
Hewlett Packard	http://www.hp.com/
Intel	http://intel.com
ASUSTeK Computer	http://www.asus.com.tw/
GIGA-BYTE	http://www.giga-byte.com/
ABIT	http://www.abit-usa.com/
Aopen	http://www.aopen-usa.com/
EPOX	http://www.epox.com/
SOYO Computers	http://www.soyousa.com/
Tekram	http://www.tekram.com/
FIC	http://www.fic.com.tw/
Micro-Star International	http://www.msi.com.tw/
I Will	http://www.iwill.com.tw/
ELITEGROUP COMPUTER SYSTEMS	http://www.ecs.com.tw/
Free Computer Technology	http://www.freetech.com/

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Notes